

DEKHITIYAR, M.V.

Antiferromagnetic properties of  $Mi_3Fe$  alloys in connection with  
atomic ordering. Fiz.met.i metalloved. 9 no.3:345-352  
Mr '60. (MIRA 13:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Nickel-iron alloys--Magnetic properties)  
(Crystal lattices)

84, 1200

S/181/62/004/003/004/045  
B139/B104

AUTHOR: Dekhtyar, M. V.

TITLE: Noncompensated antiferromagnetism and anomalous temperature dependence of the magnetic properties of a Fe<sub>3</sub>Cr alloy as related to the atomic ordering

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 601-604

TEXT: The author measured the residual magnetism  $I_r$  and the coercive force  $H_c$  of hardened and/or deformed Fe<sub>3</sub>Cr alloy in the temperature range 20-660°C on samples 200 mm in length and 0.3 mm in diameter in vacuum of  $10^{-4}$  mm Hg.  $I_r$  and  $H_c$  were determined as functions of measuring temperature and annealing temperature.  $I_r$  has a maximum in the temperature range 400-520°C and then rapidly drops to zero. The compensation point is at 605°C; at 655°C, the alloy changes into the paramagnetic state. The

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Noncompensated antiferromagnetism...

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author proves the  $I(T)$  diagram and the  $H(T)$  diagram of the  $Fe_3Cr$  alloy to obey the same laws as he had demonstrated earlier for  $Ni_3-Fe$  and  $Ni-Fe$  (50% Ni) alloys to do (FMM, 2, 345, 1960; Izv. AN SSSR, ser. fiz., 23, 271, 1959; ZhETF, 34, 772, 1958; FMM, 8, 412, 1959). The anomalous increase of  $I_r$  and  $H_c$  in the range of  $400-530^{\circ}C$  does not occur when the alloy has been annealed at  $530^{\circ}C$  for 50 hrs. The existence of a compensation point at  $605^{\circ}C$  is indicative of the antiferromagnetic character of the exchange coupling of the alloy. Related to this is the peculiar shape of the  $I(T)$  curve with two maxima in the weak magnetic fields. The measured  $I(T)$  curves with the anomalous maximum about  $150^{\circ}C$  below the paramagnetic-transition temperature correspond to the curves calculated by M. E. Fisher (Proc. Roy. Soc., 254, 66, 1960). The latter prove that the  $I(T)$  curves of antiferromagnetic alloys with a super exchange have their maximum in the weak magnetic fields close to the temperature where the antiferromagnetic orientation is destroyed. S. V. Vonsovskiy, A. A.

✓ B.

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Noncompensated antiferromagnetism... S/181/62/004/003/004/045  
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Berdyshev, Yu. A. Izyumov, B. V. Karpenko, and Yu. Ya. Polyak (DAN SSSR, 132, 797, 1960) are mentioned. There are 4 figures and 7 references: 4 Soviet and 3 non-Soviet. The reference to English-language publications read as follows: H. Masumoto, H. Saito, M. Sugihara, Sci. Rep. Res. Inst. Tohoku Univ., 5, 203, 1953; R. Stuart, W. Marschall, Phys. Rev., 120, 353, 1960.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov) ✓  
B

SUBMITTED: September 29, 1961

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S/181/62/004/003/005/045  
B139/B104

AUTHOR: Dekhtyar, M. V.

TITLE: Antiferromagnetism of a Ni<sub>3</sub>Mn alloy in relation to the atomic ordering

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 605-608

TEXT: The author demonstrates that an antiferromagnetic ordering is promoted in a Ni<sub>3</sub>Mn alloy by annealing at 480°C. The samples 200 mm in length and 0.5 mm in diameter were annealed at 460-480°C for 100 hrs, then heated to 520°C, and then again annealed by steps of 1 hr each in the range of 520 down to 101°C. After each annealing test samples were cooled on the air down to room temperature, and magnetization, residual magnetization I<sub>r</sub>, and coercive force H<sub>0</sub> were measured. When annealing temperature is decreased to 470-380°C, I<sub>r</sub> grows rapidly up to 500 gauss, while H<sub>0</sub> remains unchanged on a level of ~15 oersteds. I<sub>r</sub> drops to zero

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Antiferromagnetism of a...

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at  $460\text{-}500^{\circ}\text{C}$  while  $H_0$  simultaneously rises to its maximum of 50 oersteds; in the author's opinion this is caused by a change of magnetic structure. This is proved by measurements of the temperature dependence of  $H_0$  in two samples of a  $\text{Ni}_3\text{Mn}$  alloy subjected to the following treatment: Sample ✓

(1) : previously heated for 2 hrs at  $900^{\circ}\text{C}$ , cooled in water, then annealed for 60 hrs at  $480^{\circ}\text{C}$ , and for another 50 hrs at  $460^{\circ}\text{C}$ . Sample ✓  
(2) : cold rolled, annealed for 100 hrs at  $480^{\circ}\text{C}$ , cooled in water. In the curve taken at  $H = 0$  the compensation point is located at about  $265^{\circ}\text{C}$ , whereas in the curve taken in the field  $H = 272$  oersteds the compensation point lies as high as  $345^{\circ}\text{C}$ . This shift is probably related to a change in ordering and/or the magnitude of magnetization of the sublattices of this alloy caused by the magnetic field. V. I. Mel'nikova and I. N. Bogachev (Ref. 11: FMM, 10, 200, 1960) are mentioned for showing up the volume changes of a  $\text{Ni}_3\text{Mn}$  alloy. N. V. Vol'kenshteyn

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Antiferromagnetism of a...

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and A. P. Konar (Ref. 6: ZhETF, 11, 723, 1941; Izv. sekt. fiz.-khim. analiza, 16, 105, 1943) are mentioned. There are 4 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: September 29, 1961

✓

Card 3/3

S/126/62/014/006/07/020  
E073/E435

AUTHOR: Dekhtyar, M.V.

TITLE: Anomalous temperature dependence of the magnetization  
of the ordered alloy Ni<sub>3</sub>Mn

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.6, 1962,  
932-935

TEXT: According to published data it can be assumed that solution treatment below 510°C gives the Ni<sub>3</sub>Mn alloys the properties of a ferromagnetic. The magnetic properties in the temperature range 20 to 450°C were measured on hardened specimens after the following heat treatments: annealing at 900°C for obtaining a disordered state; annealing below 510°C for obtaining an ordered state. Both during the heat (solution) treatment and the measurements, the specimens were inside sealed quartz tubes evacuated to 10<sup>-4</sup> mm Hg. The results obtained show that on heating to 200°C the coercive force decreases from 23 to 1 Oe, but the residual magnetization  $I_r$  drops only to half. At 315°C  $I_r = 0$  and for the following 100°C its sign is opposite to that of the magnetization field. Curves of the temperature

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Anomalous temperature ...

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E073/E435

dependence of magnetization in the range 0.54 to 272 Oe show that between 20 and 150°C the magnetization changes relatively little for the fields 0.54, 1.26 and 2.7 Oe, although the coercive force in this temperature range shows a sharp decrease; heating above 150°C produces only insignificant changes in the coercive force but the magnetization in weak fields increases greatly. The  $I_r(T)$  curves show a maximum which with increasing field strength is displaced towards lower temperatures: 280°C for  $H = 0.54$ , 140°C for  $H = 272$  Oe. In fields of 27, 81 and 272 Oe, the magnetization decreased on heating the alloy to 100°C and then increased again, passed through a maximum and changed sign in the neighbourhood of 350°C. The compensation point on these curves shifts with increasing magnetic field potential towards higher temperatures. The temperature dependence of the residual magnetization of a Ni<sub>3</sub>Mn specimen subjected to a different heat treatment showed a similar anomaly; the change in the heat treatment prior to the ordering long-duration annealing at 480°C produced only a slight shift in the position of the compensation point. This anomaly is not characteristic of ferromagnetics.

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Anomalous temperature ...

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The curves reveal a temperature of compensation of the magnetic moments, indicating the existence of an antiferromagnetic exchange interaction in an alloy annealed over a long period below 510°C.  
There are 4 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im.  
M.V.Lomonosova (Moscow State University imeni  
M.V.Lomonosov)

SUBMITTED: November 20, 1961

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DEKHTYAR, M.V.

Anomalous temperature dependence of the magnetization of an  
ordered Ni<sub>3</sub>Mn alloy. Fiz.met.i metalloved. 14 no.6:932-935  
D '62. (MIRA 16:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Nickel-manganese alloys—Magnetic properties)  
(Metals, Effect of temperature on)

L 11066-63 EWP(?) / EWT(1) / EWT(m) / BNS--AFFTC/ASD--IJP(C)/JD

ACCESSION NR: AP3000598

8/0181/63/005/005/1258/1263

AUTHOR: Dekhtyar, M. V.

56  
55

TITLE: Atomic and magnetic ordering of tempered alloys of Ni sub 3 Mn

SOURCE: Fizika tverdogo tela, v. 5, no. 5, 1963, 1258-1263

TOPIC TAGS: neutron graphing, magnetization, ordering, Mn, Ni

ABSTRACT: The effect of ordering on the magnetic properties of tempered alloys of Ni sub 3 Mn has been studied so as to define more precisely the ordering temperature. After tempering at 400-460C for an interval too brief to produce a superlattice, according to neutron graphing, a considerable increase in magnetic moment was observed in the tempered alloy, a phenomenon explained by approach to the ordered state. Heating the alloy of Ni sub 3 Mn, previously tempered in the 400-460C range, produced an increase in magnetization. If the alloy was tempered after being held at any temperature above 460C, magnetization declined regardless of whether the alloy was near or far from the ordered state. With the sharp decrease in magnetic moment on raising the heating temperature to 460-500C there appeared simultaneously an uncompensated antiferromagnetic orientation of the magnetic moments. The results obtained are in agreement with the neutron-graph studies described in the paper of M. Marcinkowski and N. Brown (J. Appl. Phys. vol. 32, Card 1/2

L 11066-63  
ACCESSION NR: AF30000598

375, 1961), and they show that the ordering temperature in alloys of Ni sub 3 Mn does not lie in the neighborhood of 520C, as previously believed, but rather lies some 60C lower, in the vicinity of 460C. Orig. art. has 3 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 190ct62

DATE ACQ: 11Jun63

ENCL: 00

SUB CODE: PH, ML

NO REF Sov: 014

OTHER: 007

lb/wm  
Card 2/2

DEKHTYAR, M.V.

Ordering temperature and short-range order effects on the magnetic properties of the Ni<sub>3</sub>Mn alloy. Izv. AN SSSR. Ser. fiz. 27 no.12:1474-1479 D '63. (MIRA 17:1)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

DEKHTYAR, M.V.

Atomic and magnetic ordering of the Fe<sub>3</sub>Cr alloy. Fiz. tver. tela  
5 no.11:3138-3141 N '63.  
(MIRA 16:12)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

L 225L1-65 EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP5002340

S/0126/64/018/006/0826/0831

AUTHOR: Dekhtyar, M. V.

TITLE: Structural and magnetic transformations of the  $\text{Fe}_3\text{Cr}$  alloy

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 6, 1964, 826-831

TOPIC TAGS: iron chromium alloy, structural transformation, magnetic transformation, order disorder transformation, iron chromium phase, magnetism, hysteresis

ABSTRACT: The present and earlier work by the author (FTT, 1963, 5, 3138) showed that two ordered arrangements exist in the  $\text{Fe}_3\text{Cr}$  alloy, one is formed at 400-530 C, and the other, formed above about 640C corresponds to the ordered  $\sigma$ -(FeCr) phase. The atomic order in melts approximating the  $\text{Fe}_3\text{Cr}$  composition is similar to that in  $\text{Fe}_3\text{Al}$  melts, where the  $\text{Fe}_3\text{Al}$  ordered structure exists at low temperatures and  $\text{FeAl}$  is formed at high temperatures. Ordered  $\text{Fe}_3\text{Al}$  and  $\text{Fe}_3\text{Cr}$  are formed after prolonged annealing below 500 C. Formation of ordered  $\text{FeAl}$  and  $\text{FeCr}$  by cooling disordered melts is more rapid, hence disor-

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I 22541-65  
ACCESSION NR: AP5002340

dered  $\text{Fe}_3\text{Al}$  or  $\text{Fe}_3\text{Cr}$  are not formed by quenching, since they change to the ordered  $\text{FeAl}$  and  $\text{FeCr}$ . The ordered compositions formed by annealing the hardened  $\text{Fe}_3\text{Cr}$  alloy above 640 or below 530 C have different Curie points, residual magnetism and coercive forces. The ordered structure formed below 530 C has a rectangular hysteresis loop. The magnetic moment of  $\text{Fe}_3\text{Cr}$  depends on the rate of cooling the disordered melt in the 1150-1000 C interval; rapid cooling resulted in a small magnetic moment. Orig. art. has: 6 figures

ASSOCIATION: Moskovskiy gosuniversitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 10Jan64

ENCL: 00

SUB CODE: MM, SS

NR REF SOV: 011

OTHER: 011

Cord 2/2

DEKHTYAR, M. V.

"Ordering and magnetic transformation of the Allo; Fe<sub>3</sub>Cr."

report submitted for Intl Conf on Magnetism, Nottingham, UK, 6-13 Sep 64.

Moscow State Univ.

DEKHTYAR, O.Ye.

Dynamics of arterial pressure in vascular diseases of the  
brain with mental disorders. Trudy 1-go MMI 21:380-388'63.  
(MIRA 16:9)

1. Kafedra psichiatrii (zav. - dotsent G.V. Stolyarov) Chi-  
tinskogo meditsinskogo instituta i kafedra psichiatrii (zav.  
prof. V.M.Banshchikov) 1-go Moskovskogo ordena Lenina medi-  
tsinskogo instituta imeni I.M.Sechenova.

(BLOOD PRESSURE) (PSYCHOSES)

(CEREBROVASCULAR DISEASE)

YELIZAROV, V.D., kand. arkh., red.; MEDVEDEV, M.I., inzh., red.; DEKH-  
TYAR, S.B., nauchnyy red.; SLIN'KO, B.I., red.; NAKINSKAYA, A.L.,  
tekhn. red.

[Large-panel housing construction] Krupnopenal'noe zhilishchnoe  
stroitel'stvo. Pod obshchei red. V.D.Yelizarova i M.I.Medvedeva.  
Kiev, Gos.izd-vo lit-ry po stroit.i arkhit. USSR, 1961. 194 p.  
(MIRA 14:12)

1. Akademiya budivnytstva i arkhitektury UkrSSR. 2. Deystvitel'nyy  
chlen Akademii stroitel'stva i arkhitektury USSR (for Yelizarov).  
(Apartment houses) (Precast concrete construction)

DEKHTYAR, Samuil Bentsionovich, inzh.; MAYBORODA, Ivan Nikolayevich, inzh.; MEDVEDEV, Mikhail Ivanovich, inzh.; ROKHLEN, Il'ya Aleksandrovich, kand.tekhn.nauk; KHUTORIANSKIY, Mikhail Semenovich, kand.tekhn.nauk; TUROVSKIY, B., red.; ZELENKOVA, Ye., tekhn.red.

[Useful ceramic construction elements] Effektivnye konstruktsii iz keramiki. Kiev, Gos. izd-vo lit-ry po stroit. i arkhit. USSR, 1958. 355 p.

(MIRA 12:2)

(Ceramics)

DEKHTYAR', S.M.

MOROZOVA, M.G.; TROFIMOV, K.A.; MAKSIMOVA, T.K.; TURONOK, L.F.; ABAKUMOVA, A.I.; GLADKIH, V.G.; YAKOVENKO, Z.L.; KUZNETSOVA, V.I.; DUSHKINA, M.M.; LNYBIN, I.S., polkovnik meditsinskoy sluzhby; DEKHTYAR', S.M., mayor meditsinskoy sluzhby.

Viacheslav Vasil'evich Aliakritskii. Arkh.pat. 15 no.2:95-96 Mr-ap '53.  
(MLRA 6:5)

1. Kafedra patologicheskoy anatomii. 2. Gorodskaya prozektura. 3. PAL.  
(Aliakritskii, Viacheslav Vasil'evich, 1885-)

*D E K H T Y A R , S. N.*  
D E K H T Y A R , S. N., inzh.; T R A K H T E N B R E G , M. B., inzh.

Demonstration highway at the exhibition in Kiev. Avt. dor. 21 no.1:  
39-40 Ja '58. (MIRA 11:1)

(Kiev--Roads, Experimental)

PETERSON, Boris Yevgen'yevich; DEKHTYAR', Ye.G., red.; BASHMAKOV, G.M.,  
tekhn. red.

[Anastomoses in gastrectomies and resection of the esophagus]  
Anastomozy pri gastrektomii i rezektsii pishchevoda. Moskva,  
Nedgiz, 1962. 166 p. (MIRA 15:11)  
(STOMACH--SURGERY) (ESOPHAGUS--SURGERY)  
(INTESTINES--SURGERY)

DEKHTYAR', Ye.

Coarctation of the aorta with special attention to improving the  
surgical technic. Zdrav.Bel. 8 no.2:65-66 F '62. (MIRA 15:11)  
(AORTA--DISEASES)

OSPOVAT, Boris L'vovich; DEKHTYAR', Ye.G., red.; MIRONOVA, A.M., tekhn.red.

[Actinomycosis of the lungs] Aktinomikoz legkikh. Moskva,  
Medgiz, 1963. 265 p. (MIRA 16:6)  
(ACTINOMYCOSIS) (LUNGS--DISEASES)

BULAVINTSEVA, Vera Ivanovna; VOSHCHANOVА, Nina Pavlovna; DEKHTYAR<sup>1</sup>,  
Ye.G., red.; BUKOVSKAYA, N.A., tekhn. red.

[Precancer diseases of the stomach and the role of dis-  
pensary service in their detection and treatment] Predra-  
koveye zabolevaniia zheludka i rol' dispanserizatsii v ikh  
vyiavlenii i lechenii. Moskva, Izd-vo "Meditina," 1964.  
94 p. (MIRA 17:3)

ARAPOV, Dmitriy Alekseyevich; ISAKOV, Yurii Viktorovich; DEKHTYAR<sup>1</sup>,  
Ye.G., red.

[Tracheostomy as a therapeutic method in emergency states]  
Trakheostomiia kak lechebnyi metod pri neotlozhnykh so-  
steianiakh. Moskva, Izd-vo "Meditina," 1964. 162 p.  
(MIRA 17:5)

SEALINOV, Aleksandr Alekseyevi P.; SHYRIN', V. G., 1964.

[Surgery on the pancreas] Khirurgija patologicheskoi zon-  
ley. Moskva, Meditsina, 1964. 726 p. (MIRA 17,8)

VAGNER, Yevgeniy Antonovich; DEKHTYAR', Ye.G., red.

[Surgical treatment of penetrating chest wounds in peace time] Khirurgicheskoe lechenie pronikaiushchikh ranenii grudi v mirnoe vremia. Moskva, Meditsina, 1964. 191 p.  
(MIRA 18:2)

VENGEROVSKIY, Isaak Solomonovich; DEKHTYAR', Ye.G., red.; ROMANOVA,  
Z.A., tekhn. red.

[Osteomyelitis in children] Osteomielit u detei. Moskva,  
Izd-vo "Meditina," 1964. 270 p. (MIRA 17:3)

DEKHTYAR', Ye. G.

Acute appendicitis and extrauterine pregnancy. Sov. med. 27 no.2:  
63-67 F '64. (MIRA 17:10)

1. Gor'kiy bol'nitsa No.27 (glavnyy vrach P.D. Klepets, nauchnyy  
rukovoditel' - chlen-korrespondent AMN SSSR prof. D.A. Tropov, zav.  
khirurgicheskim otdeleniyem - kand. med. nauk L.S. Ostrovskaia),  
Moskva.

ANTOSHIKA, N.V.; ASTAF'YEV, G.V.; BABKIN, S.I.; BULAVIN, N.F.;  
BELEN'KIY, V.A.; BEREZIN, I.P.; BOBEC, B.S.;  
VOLKOV, A.M.; GRITSMAN, Yu.Ya.; KUKUSHKIN, L.I.; PERERELKIN,  
V.F.; PETROVA, N.F.; GESELEVICH, A.M., red.; DEKHTYAR', Ye.G.,  
red.

[New surgical apparatus and instruments; a practical manual  
for physicians, students of senior courses at medical insti-  
tutes and surgical nurses] Novye khirurgicheskie apparaty i  
instrumenty; prakticheskoe rukovodstvo dlia vrachei, studen-  
tov starshikh kursov meditsinskikh institutov i operatsion-  
nykh sester. Moskva, Meditsina, 1964. 253 p.

(MIRA 18:3)

DFKHTYAK', Yevgeniya Grigor'yevna; GORELIK, S.I., ref.

[Acute appendicitis in women] Ostrozh' appendicitis u zhenshchin. Moskva, Meditsina, 1969. 92 p.  
(MIA 12:2)

AKULOVA, Raisa Fedorovna; DEKHTYAR', Ye.G., red.

[Chronic disorders of blood circulation and nutrition  
of the extremities; clinical aspects and treatment]  
Khronicheskie narusheniia krovoobrashchenii i trofiki  
konechnostei; klinika i lechenie. Moskva, editsina,  
1965. 394 p.  
(MIRA 18:5)

GOREBETINA, R.V.; BUKHTYAR', V.G.

Appendectomy in emergency gynecological interventions. "Khirurgija"  
40 no.8:98-101 Ag '64. (NEKA 18:3)

1. Gorodskaya bol'nička No.27 (glavnyy vrach P.B. Kiepešta, nuchnyy  
rukoveditel' - chlen-korrespondent AMN SSSR prof. P.A. Čirapov, zav.  
khirurgicheskim otdeleniyem - kand. med. nauk L.S. Ostrovskiy),  
Moskva.

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4

BREGADZE, Iosif Lavrent'yevich; IVANOV, Petr Aleksandrovich  
DEKHTYAR', Y. G. red.

[External biliary fistulae] Naruzhnye zhelchnye svishchi.  
Moskva, Meditsina, 1965. 142 p.  
(MIRA 18:8)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4"

L 47326-65 EWT(d)/EWA(d)/EMP(r)/EMP(k)/EMP(s)/EMP(l) pg. 4  
ACCESSION NR: AP5010877

UR/0386/65/000/007/0058/0058

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B

AUTHORS: Dekhtyar', Ye. I.; Obodan, V. Ya.

TITLE: A device for the non-contact controlling of an electric motor by means of the field. Class 21, No. 169642

SOURCE: Byulleten' izobretensiy i tovarknykh snakov, no. 7, 1965, 58

TOPIC TAGS: electric motor, rolling mill

ABSTRACT: This Author Certificate presents a device for non-contact controlling by means of a field of a main drive electric motor of a reversible rolling mill. The device includes an integrating dynamo-electric amplifier (or magnetic amplifier). The basic control winding of the amplifier is fed a voltage proportional to the difference between the voltage of the motor excitation current and the reference voltage of the circuit section of the master potentiometer, changed by means of a preset unit to the functions of the signal of the non-contact command equipment and also of the relay amplifier. A shaping unit is connected parallel with the section of the circuit of the basic control winding. This unit limits the decrease of the voltage and the decrease of the motor excitation current function according to a preset nonlinear law. To increase the

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L 47326-65

ACCESSION NR: AF5G10877

flexibility of the control system, the shaping unit includes a magnetic amplifier-controlled semiconductor triode. The collector circuit of this triode is connected in parallel through the reversible quadrangle of the electric gates to the part of the circuit of the indicated control winding of the integrating amplifier. In the base circuit, the collector is connected to the load resistance of the magnetic amplifier and to the silicon stabililtron. To improve the performance of the control system, the preset unit includes a controlled magnetic amplifier semiconductor triode. The collector circuit of the triode is connected to the part of the circuit of the master potentiometer of the reference voltage. In the base circuit, the collector is connected to the silicon stabililtron and to the load resistance of the magnetic amplifier. The permitted signal of the field attenuation obtained from the relay amplifier is sent to the input of the magnetic amplifier. The prohibition signal of the field attenuation at the time of reversing is being fed from the contour of the control winding of the indicated integrating amplifier (see Fig. 1 on the Enclosure). Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 22Dec61

ENCL: CL

SUB COM: EE, IE

NO REF Sov: 000  
Card 2/3

OTHER: 000

DREHTYARENKO, P.I.

Single-choke magnetic drive. Avtomatyka no.1:84-88 '56. (MLRA 9:10)

1.Institut elektrotehniki Akademii nauk URSR.  
(Electric motors)

~~DIKHTYARENKO, P. I.~~

Experimental determination of frequency responses of electro-mechanical automatic control systems [with summaries in Russian and English]. Avtomatyka no.2:88-102 '57. (MLRA 10:8)

1. Institut elektrotekhniki Akademii nauk URSR.  
(Automatic control)

DEKHTYARENKO, P.I.

On the design and switching diagrams of interruption circuits for fast response off-on servo systems [with summaries in Russian and English]. Avtomatyka no.3:70-83 '57. (MIRA 10:10)

1. Institut elektrotehniki Akademii nauk URSR.  
(Servomechanisms)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4

*Dekhtyarenko, P.I.*

DEKHTYARENKO, P.I.

Using rectangular disturbances for determining the amplitude and  
phase characteristics of automatic control systems [with summary in  
English]. Avtomatyka no.4:106-109 '57.  
(MIRA 11:1)

1. Institut elektrotehniki AN URSR.  
(Automatic control)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4"

AUTHOR: P.I. Dekhtyarenko SOV/102-58-2-8/10

TITLE: A Device for recording the amplitude-phase characteristics of control systems which uses a two-co-ordinate a-c potentiometer operating on a carrier frequency. (Prystriy dlya zapysu amplitudno-fazovykh kharakterystik system reholyuvannya yakyy vykorystovuy kompleksnyy potentsiometr zminnoho strumu nesuchod chastoty)

PERIODICAL: Avtomatyka, 1958, No.2, pp. 85-94 (USSR)

ABSTRACT: Difficulties are encountered in handling the very low frequencies encountered in automatic control problems directly; these are overcome by first modulating the low frequency onto a carrier. The theory of the system is first considered in relation to Fig.1. (a servo operating with a modulated carrier frequency), and it is pointed out that this is just like any two-co-ordinate potentiometer operating on a-c. The circuit of Fig.2., which mainly relates to how the two-co-ordinate potentiometer is supplied from a selsyn, is then considered, first for manual balancing (very briefly) and then for automatic balancing. Fig.3. shows the envelopes of the voltages operating. The system of Fig.1. is used for each co-ordinate; the first two valves act as a-c amplifiers, and the second pair as a phase-sensitive amplifier; the two co-ordinate drive motors are fed from the circuits of Fig.5. (with or without additional polarized relays respectively, in the two circuits shown). The system is really merely an extension of the manual balancing one, as the intermediate relay has to follow the variations of the modulation, and this sets a strict upper bound to

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SOV 102-58-2-8/10

A device for recording the amplitude-phase characteristics of control systems which uses a two-co-ordinate a-z potentiometer operating on a carrier frequency

the frequency which can be handled (50-100 c/s if high-speed polarized relays are used). The system has the disadvantage that the two balancing circuits are coupled, which can lead to instability; the next section deals with the principles of independent balancing, in which large RC filters are used with the circuit of Fig. 5. Fig. 6 shows the circuit of an experimental instrument designed round these principles, in which transistors are used in the phase discriminators, while Kruper's circuit (ref. (11)) is used for the modulator; the detailed circuits are not given. Fig. 7. gives a general view of the apparatus; a few design details are also given. Fig. 8. compares the amplitude-phase curves obtained a) from an oscilloscope, b) by the three vectors method, and c) from the instrument. The paper contains 8 figures and 17 references, of which 10 are Soviet and 2 Ukrainian.

ASSOCIATION: Instytut Elektrotekhniki AN URSR (Institute of Electrical Engineering  
Ac.Sc. Ukrainian SSR)

SUBMITTED: September 21, 1957.

1. Control systems--Recording devices
2. Control systems--Circuits
3. Control systems--Stability

Card 2/2

SOV/102-58-3-8/10

AUTHOR: Dekhtyarenko, P.I.

TITLE: The Response of a Device for Recording the Amplitude and Phase Characteristics of Control Systems (Pro dynamiku prystroyu dlya zapysu amplitudno-fazovykh chastotnykh kharakterystyk regul'ovanykh system).

PERIODICAL: Avtomatika (Kyiv), 1958, Nr.3, pp.92-101 (USSR)

ABSTRACT: Two methods of recording the characteristics are considered. In the first the frequency is varied continuously (e.g. as in the two ways shown in Fig.1); in the second it is varied stepwise. The object is to deduce the maximum scan rate compatible with a given error. The problem, which is one common to all methods of measuring frequency response curves by frequency modulation methods, is considered using formulae quoted from other papers; the symbols are not defined. A second-order system represented by the equations at the foot of p.93 is considered. The expressions are cumbrous; they are also unsuitable for extremal (self-adjusting) systems. Fig.2 shows some results for a voltage regulator; it is concluded that stepwise frequency

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SOV/102-58-3-8/10

The Response of a Device for Recording the Amplitude and Phase  
Characteristics of Control Systems.

variation is the best, provided the time between steps is sufficient for the transients to become negligible. The time required to describe the curves reasonably accurately (by taking 15-20 points) is reduced by a factor 5 or more. Systems with constant- and proportional-speed motors are briefly considered, as regards their response curves recorded on the automatic recording device, using chord-recording (illustrated by Fig.4). There are 4 figures and 19 references, of which 17 are Soviet, 1 English and 1 German.

ASSOCIATION: Instytut elektrotechniki AN URSR (Institute of Electrical Engineering, Academy of Sciences, Ukr.SSR).

SUBMITTED: March 13, 1958.

Card 2/2

AUTHOR: Dekhtyarenko, P.I.

SOV/102-58-4-9/11

TITLE: Steady-State Behaviour of an Equipment for Recording  
Amplitude-Phase Curves for Automatic Control Systems

PERIODICAL: Avtomatika, 1958, Nr 4, pp 74-82 (Ukr.SSR)

ABSTRACT: The paper presents a standard treatment of the steady-state errors of a system described by the author in Avtomatika Nr 2, 1958. Errors caused by inexact measurements and settings in all major units are allowed for. It is shown that the error is reasonable if no more than 10-20 points are demanded on the curves.

Card 1/1 There are 4 figures and 9 references, of which 5 are Soviet, 3 Ukrainian and 1 is a translation from English.

ASSOCIATION: Institut elektrotehniki AN URSR  
(Institute of Electrical Engineering, Ac.Sc. Ukr.SSR)

1. Institut elektrotehniki AN URSR  
(autor. I. S. Dekhtyarenko)

DEKHTYARENKO, P. I.: Master Tech Sci (diss) -- "Problems in the methodology and equipment for the experimental determination of the frequency characteristics of regulated systems". Kiev, 1959. 16 pp (Min Higher Educ Ukr SSR, Kiev Order of Lenin Polytech Inst), 100 copies (KL, № 13, 1959, 104)

16.9500

80173

S/102/59/000/02/009/011

Author: Dekhtyarenko, P. I.

TITLE: Use of Relay-Type Synchronous Detectors in Recording the Frequency Response of an Automatic Control System q

PERIODICAL: Avtomatika, 1959, Nr 2, pp 95-104 (UkrSSR)

ABSTRACT: The paper deals with the steady-state conditions. Fig 1 shows the polarized-relay system; the phasing of the relay is controlled by means of the phase of the drive voltage (a method most unsatisfactory at low frequencies). It is shown that the error in such a system cannot be kept within reasonable bounds unless the switching is effected by means of two relays operated by voltages having a relative phase shift of 90° (Fig 2). The third section deals with the time for which the contacts are closed as a function of the switching voltage (Fig 3); Fig 4 deals with effects arising from change in the sensitivity of the relay. A short note points out that the switching voltage must be reasonably free from harmonics. The table indicates the contributions of harmonics in the switched signal (which may derive from a nonlinear device) on the reading for the fundamental. The fourth section deals with the maximum frequency at which such a system can be used, and with ways of increasing that

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80173  
S/102/59/000/02/009/011

Use of Relay-Type Synchronous Detectors in Recording the Frequency Response of an Automatic Control System

frequency (e.g. by biasing the relay - Fig 5). The fifth section deals with tests on the system made by means of a simple RC circuit (Fig 6 - which also shows the results and the effects of errors, which mainly arise from deviation from true wave shape in the signal). The sixth section is a general discussion of the use of such a device in recording the response curves of automatic systems. There are 7 figures, 1 table and 7 references, 6 of which are Soviet and 1 German.

ASSOCIATION: Instytut elektrotekhniki AS UkrSSR (Electrical Engineering Institute of AS UkrSSR)

SUBMITTED: February 2, 1959.

X

Card 2/2

*DEKHTYARENKO, P.I.*

PLATE I NOTE INFORMATION

SOV/4526

Sovetskaya po teorii invariansov i ego prilozheniy v avtomaticheskikh upravlyayushchikh sistemyakh. Kiyev, 1959.

Theory of Invariance and its Applications to Automatic Devices; Sovetskaya (Theory of Invariance and its Applications to Automatic Devices; Transactions of the Conference Oct. 10-22, 1958) Moscow, 1959. 381 p. No. of copies printed not given.

Organizing Committee: Academy nauk Ukrainskoy SSR. Otdelenie tekhnicheskikh nauk.

Prof. M. V. Salobatin, Academician; Editorial Commission: V. I. Bozdar, Doctor of Technical Sciences; A. I. Pavlyuchenko, Doctor of Technical Sciences, A. N. Ishlitsky, Academician, Member of Sciences USSR; I. A. Lebedeva, Candidate of Technical Sciences; P. I. Dekhtyarenko, Doctor of Physics and Mathematics, A. I. Kurnosov, Doctor of Technical Sciences, Corresponding Member, Academy of Sciences USSR; T. M. Popov, Doctor of Technical Sciences, G. M. Ushakov, Doctor of Technical Sciences, I. L. Kurenov, Academician, Academy of Sciences USSR; P. I. Chumakov, Candidate of Technical Sciences; Yeom. M. G. Kruglov.

PURPOSE: This collection of papers is intended for engineers and other specialists working in various fields of automation.

CONTENTS: The collection includes reports and papers presented at the Conference on the Theory of Invariance and its Applications to Automatic Devices, which was called by the Ukrainian Technological Institute (Department of Technical Sciences) and the Institute of Electrotechnics (Institute of Electrical Engineering) of the Academy of Sciences of the Ukraine and convened in Kiev October 10-12, 1958. The papers presented are concerned with high-quality automatic control systems designed on the basis of compensating for the effects of disturbances or maintaining the invariance of the quality to be regulated with respect to the disturbances acting on the system. The reports treat the physical and mathematical foundations of invariance in automatic control systems; they also consider methods for designing and calculating invariant systems and problems connected with specific cases of practical applications of compensation in various automatic systems. On the basis of these reports it was established by the conference that, by utilization of the conditions of compensation and the principle of invariance, it is possible to produce automatic systems and various arrangements which are more perfect from the viewpoint of quality of regulation and control processes, reliability, simplicity of construction, and reliability of operation. The following names of the Kiev Seminar on Automatic Control are mentioned as organizers of the conference: I. I. Kubatko, A. G. Ivashchenko, Yu. G. Koroliov, O. M. Krymskiy, M. H. Chumakov, I. A. Lebedeva, and P. I. Chumakov. References occupy 60 articles.

21. Dekhtyarenko, P. I. On Boosting in Servosystems With Constant Speed of the Servomotor. 320
22. Serebrenik, G. F. Rate-and-Acceleration Differentiator for Automatic Control Systems. 321
23. Dekhtyarenko, P. I. Application of the Theory of Invariance in an Automatic Electric Drive. 324
- Section D. Invariance in Other Systems and Devices
24. Ponomarenko, G. S. Invariance of Certain Coordinates in Automatic Control of Aircraft. 328
25. Dekhtyarenko, P. I. Flight Control With the Aid of Discrete Signals. 329
26. Melnikov, G. S. Temperature Regulator With Thermal Resistance Heating on the External Disturbance. 334
27. Dekhtyarenko, P. I. Application of the Theory of Invariance and its Realization in the Computer. Regarding the Theory of Invariance and its Application to Automatic Devices. 335
- Decree of the Office of the Presidium, Academy of Sciences, USSR  
Formation of the Committee in Connection With the Discussion of the Theory of Invariance. 339

DEKHTYARENKO, P.I.

Use of a controlled synchronous detector with relay action for measuring voltages of very low frequency with the presence of asynchronous interference. Avtomatyka no. 1:69-74 '60. (MIRA 14:5)

1. Institut elektrotehniki AN USSR. Rabota vypolnena v laboratorii avtomaticheskogo regulirovaniya Instituta elektrotehniki AN USSR.  
(Servomechanisms)

64284

13.2000

S/102/60/000/003/005/006

C 111/ G 333

AUTHORS: Obolons'kyy, O. P., Dekhtyarenko, P. I.

TITLE: Low-Power Servosystem With Transistors

PERIODICAL: Avtomatika, 1960, No. 3, pp. 38-45

TEXT: This article gives a description of a designed low-power servosystem with transistors working on a raised frequency with an internal generator and transistors. The question is a single-channeled scheme consisting of a modulator, an amplifier, a two-phase asynchronous motor, a reducer, a potentiometer bridge and of an RC-filter. The modulator (figure 2) is a reversible two-stroke key-scheme with the two transistors P | D with a low noise level. At the output  $T_r$ , the rectangular impulses are smoothed by the condenser  $C_2$ .

An experimental study of the servosystem showed that the most effective evaluation of the servosystem, tried up to transient responses with extremely little overcorrection is the servo error. The servo errors of the system with transistors do not exceed those of similar systems with electronic tubes within an ambient temperature range of + 60°C to - 25°C.

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Card 1/3

84284

S/102/60/000/003/005/006  
C 111/ C 333

Low-Power Servosystem With Transistors

There are 6 figures, 1 table, and 7 references: 5 Soviet and 2 American.

ASSOCIATION: Instytut elektrotekhniki AN URSR (Institute of  
Electrical Engineering AS Ukr SSR)

SUBMITTED: March 2, 1960

ELECTRO - TECHNICAL INSTITUTE AN USSR.

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Card 2/3

Low-Power Servosystem With  
Transistors

84284  
S/102/60/000/003/005/006  
C 111/ C 333

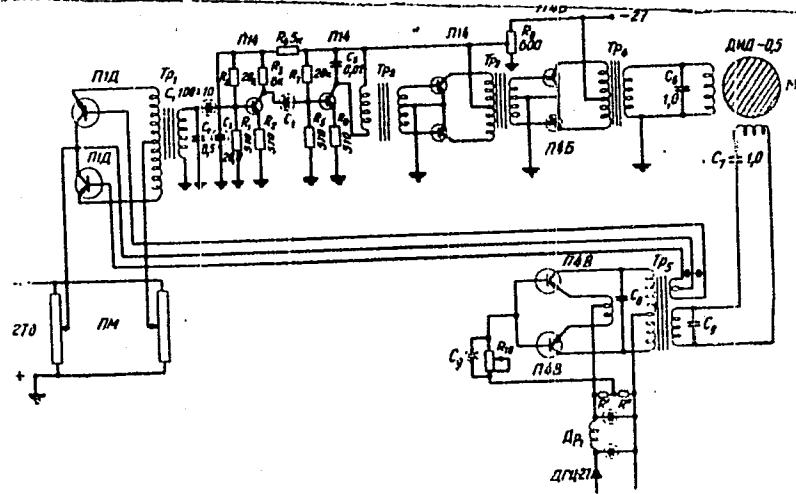


Рис. 2. Принципіальна схема слідуючої системи.

Card 3/3

DEKHTYARENKO, Pavel Ivanovich; SHAPOVALENKO, O.G. [Shapovalenko, O.H.],  
kand. tekhn. nauk, otv. red.; REMENNIK, T.K., red. izd-va;  
RAKHLINA, N.P., tekhn. red.

[Experimental determination of the frequency characteristics of  
automatic control systems] Eksperimental'ne vyznachennia chastot-  
nykh kharakterystyk system avtomatychnoho reguliuvaniia. Kyiv,  
Vyd-vo Akad.nauk URSR, 1961. 143 p. (MIRA 15:2)  
(Automatic control)

9.6000 (1040,1139,1159)

35290  
S/637/61/000/000/003/008  
D201/D301

AUTHOR: Dekhtyarenko, P.I., Candidate of Technical Sciences

TITLE: Synchronous detection in measuring non-sinusoidal very low frequency voltage vectors

SOURCE: Konferentsiya po avtomaticheskому kontrolyu i metodam elektricheskikh izmereniy. Novosibirsk, 1959. Trudy. Novosibirsk, 1961, 123 - 130

TEXT: The author gives a brief survey of synchronous detectors as used for measuring vectors of non-sinusoidal voltages at very low frequencies, with and without the presence of noise. The types of synchronous detectors surveyed are: Phase-sensitive circuits, mechanical and switched detectors. Two methods of measurement are briefly discussed: The modulus and phase measurement in polar coordinates, their main deficiency being poor accuracy with distorted curve shape and the rectangular coordinate system of measurement. The simplest and most reliable is the mechanical synchronous detector. Because of the long duration of measurements at very low frequencies, the method is not suitable for industrial use. X

Card 1/2

S/637/61/000/003/008

D201/D301

Synchronous detection in measuring ...

cies, integration methods of indication are used and the period of measurement may be theoretically reduced to the duration of one half-period of the measured voltage. Experiments with the fluxmeter type M-19 have shown that already at voltages of several volts the instrument sensitivity was such that it was necessary to use resistance higher than the nominal instrument resistance of 8 ohms. The pointer drift was not detectable even at frequencies down to 0.01 c/s. It is concluded that the principle of synchronous detection makes it possible to solve comparatively complex problems of measurement of non-sinusoidal voltage vectors by simple methods and within a wide range of very low frequencies and in the presence of noise. There are 3 figures and 15 references: 13 Soviet-bloc and 2 non-Soviet-bloc.

X

ASSOCIATION: Institut elektrotekhniki AN USSR, Kiyev (Institute of Electrical Engineering, AS UkrSSR, Kiyev)

Card 2/2

DEKHTYARENKO, P.I. (Kiyev); KOZUBOVSKIY, S.F. [Kozubovs'kyi, S.F.] (Kiyev)

Use of a correlation method for analyzing the static errors of an  
automatic system for measuring the speed of a rolling process.  
Avtomatyka no.5:42-48 '61. (MIRA 14:10)  
(Rolling (Metalwork)) (Electronic measurements)

3/716/01/013/000/003/103  
5237/5301

AUTHORS: Gerasimchenko, O. A., Dekhtyarenko, P. I., Karpenko, V. P.  
and Khirizman, S. S.

TITLE: Selecting the automatic control system for a differential  
calorimeter

SOURCE: Akademiya nauk Ukrayins'koyi RSR. Instytut elektrotekhniki.  
Scornik trudov, v. 18, 1961. Voprosy magnitnykh iz-  
mereniy, 27-37

TEXT: The authors consider various methods of automatic control of  
a differential calorimeter used to measure losses in ferromagnetic  
materials at high frequencies. A ferromagnetic sample, subjected  
to a suitable voltage and therefore producing heat due to losses,  
is placed in a measuring calorimeter. Another identical calorimeter  
serves as a standard: Heat is supplied to it until temperatures are  
the same in both calorimeters. When the temperatures are equal,  
heat is supplied to both calorimeters at the same rate and the el-  
ectric losses in the sample can be deduced from the electrical

Card 1/2 ✓

Selecting the automatic...

3/7 6/61/013/000/003/013  
D20"/D501

power supplied to the standard calorimeter. The authors show that these measurements can be automated by suitable control of the power supplied to the standard calorimeter. The authors discuss continuous and intermittent methods, using either temperature or its rate of change with time as the input signal. It was found that the simplest and most satisfactory system was an intermittent control system, based on temperature as the input signal. This signal was amplified and used to work a polarized relay which controlled the heater of the standard calorimeter. The control system was checked experimentally and found to be reliable and accurate. There are 4 figures.

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Card 2/2

S/102/62/000/003/001/005  
D234/D308

6.9200

AUTHORS: Dekhtyarenko, P.I. and Kozubovs'kyy, S.F. (Kiyev)

TITLE: Analysis of errors of relay correlation functions

PERIODICAL: Avtomatyka, no. 2, 1962, 3-15

TEXT: The authors investigate the deviations of the relay autocorrelation and mutual correlation functions (in which  $f(t - \tau)$  has been replaced by sign  $f_2(t - \tau)$ ) with respect to the ordinary correlation functions. The first part deals with the case of determined functions of time (sinusoidal and those consisting of a finite number of sinusoidal terms); expressions for the errors are deduced. Double relay correlation functions (having also sign  $f(t)$  instead of  $f^*(t)$ ) are introduced and expressions for their errors obtained. In the second part, the case of random time functions is studied by methods of theory of probability. There is a single-valued connection between the double relay and the ordinary (proportional) correlation function in the second case. There are 2 figures.

SUBMITTED: May 15, 1961

Card 1/1

DEKHTYARENKO, P.I. (Kiyev); KOZUBOVSKIY, S.F. [Kozubovs'kyi, S.F.] (Kiyev)

Analysis of the errors of relay correlation functions. Avtomatyka  
7 no.3:3-15 '62. (MIRA 15:6)  
(Information theory) (Automatic control)

DEKHTYARENKO, P.I. (Kiyev)

Two-phase motor and compatible phase-sensing detector of the carrier  
and envelope of an amplitude modulated voltage. Avtomatyka 7  
no. 5:43-48 '62. (MIRA 15:11)  
(Automatic control)

GERASHCENKO, O.A.; DEKHTYARENKO, P.I.; KARPENKO, V.P.

Analyzing diagrams for the automatic control of differential  
calorimeters. Trudy inst. Kom.stand.mer i izm. prib no. 64:  
197-207 '62. (MIRA 16:5)  
(Magnetic measurements) (Calorimeters) (Automatic control)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4

DEKHTYARENKO, Pavel Ivanovich; IMAS, R.L., red.izd-va; KADASHEVICH,  
O.A., tekhn. Red.

[Maximum voltage indicators] Indikatory naibol'shego napri-  
zheniya. Kiev, Izd-vo AN Ukr.SSR, 1963. 53 p. (MIRA 16:9)  
(Automatic control)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4"

L 12999-63

BDS

ACCESSION NR: AP3001591

S/0102/63/000/003/0059/0069

46

AUTHOR: Dekhtyarenko, P. I. (Kiev)

TITLE: Designing the maximum-voltage indicator

SOURCE: Avtomatyka, no. 3, 1963, 59-69

TOPIC TAGS: maximum-voltage indicator, elements of logic

ABSTRACT: The indicator is considered as an element of logic which can effect (a) selection of maximum voltage and (b) indication of the place of maximum voltage. Comparison of various schemes of the indicator reveals that the type of scheme depends on both the number of treated voltages and the rate of their variations in time. Sequence- (cyclic-)acting indicators are relatively slow; they are applicable only with voltages varying slowly, when the voltages remain practically constant over the period of "polling" all voltages. Pair-comparison indicators have a quicker action which is determined by the operating time of all stages of the scheme. The quickest are the parallel (simultaneous-action) schemes; they are applicable to the cases of rather rapidly varying voltages. Methods of design of various indicator schemes are set forth in the article. Special attention is paid to obtaining minimum zones of ambiguous operation of the parallel scheme. Selection of relays and diodes is considered. "I am expressing my best  
Cord 1/2

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4

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ACCESSION NR: AP3001591

thanks to O. M. Kostyuk for his friendly criticisms and encouragement during the preparation of the article." Orig. art. has: 5 figures and 21 formulas.

ASSOCIATION: none

SUBMITTED: 01Jul61

SUB CODE: 00

DATE ACQ: 01Jul63

ENCL: 00

NO REF Sov: 002

OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4"

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4

DEKHTYARENKO, P.I.

Electrodynamic detector of amplitude-modulated signals. Izm.  
tekh. no.12:28-30 D '63.  
(MIRA 16:12)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4"

AP8005848 SOURCE CODE: UR/0102/65/000/004/0010/0020

AUTHOR: Dekhtyarenko, P. I. (Kiev)

ORG: None

TITLE: The effect of the deviation of parameters of linear systems with indirect measurement of perturbations

SOURCE: Avtomatyka, no. 4, 1965, 10-20

TOPIC TAGS: automatic control system, linear automatic control system, automatic control theory, perturbation

ABSTRACT: The author investigates several types of linear automatic control systems with indirect measurement of perturbations by means of differential circuits. The effect of an inaccurate adjustment of the parameters of the measuring and compensation systems is analyzed for the case when the conditions of full compensation of the effect of perturbations on the controlled quantity are satisfied approximately. The author shows the need for taking into account the effect of saturation on the operation of the system with indirect measurement of perturbation. Orig. art. has: 5 figures and 18 formulas.

SUB CODE: 09, 13 / SUBM DATE 26Jan65 / ORIG REF: 006  
Card 1/1 rst

51  
B

22

DEKHTYARENKO, T. D.

"Investigation of Muscle Proteins During Avitaminosis." Cand Biol  
Sci, Chair of Animal Biochemistry, Kiev, State U imeni T. G. Shevchenko,  
Kiev, 1951. (KL, No 12, Mar 55)

SO: Sum. No. 670, 29 Sep 55—Survey of Scientific and Technical  
Dissertations Defended at USSR Higher Educational Institutions (15)

GROMASHEVSKAYA, L.L.; DEAKHTYARENKO, T.D.

Some general features of the action of certain chemicals (syntho-  
mycin, norsulfazole, biomycin) on the liver; report on an experi-  
ment [with summary in English]. Farm. i toks. 22 no.1:75-80 Ja-F  
'59.

(MIRA 12:4)

1. Institut infektsionnykh bolezney AMN SSSR, Kiyev.  
(LIVER) (PHARMACOLOGY)

DEKHTYARENKO, T.D.

Changes in the amount and composition of nucleic acids in Bacterium Breslau due to the influence of ionizing radiations. Communication No.1: Studies on nucleic acid content of variants of Bacterium Breslau obtained by X irradiation. Mikrobiol. zhur. 22 no.4:32-36 '60. (MIR 13:11)

1. Iz Instituta mikrobiologii AN USSR.  
(SALMONELLA) (NUCLEIC ACIDS)  
(X RAYS—PHYSIOLOGICAL EFFECT)

DEKHTYARENKO, T.D., kand.biolog.nauk

Symposium on Bacterial Transformation and Bacteriocins. Vest.  
AN SSSR 34 no. 1:89-90 Ja '64.  
(MIRA 17:5)

DEMYANENKO, T. P.

Study of DNA composition in variants of the enteric group D  
bacteria produced by the transformation in their plasmids.  
Biol. 6:65:66(1981) S-3 '64.

U. Institut mikrobiologii AN UkrSSR, Kiev,

DEKHTYARENKO, T.D.

Change in the DNA composition of double transformants of *E.*  
*Breislau* and *B. typhi abdominalis*. *Mikrobiol. zhur.* 26 no. 3.28.  
31 '64.

(MIRA 1815)

1. Institut mikrobiologii AN UkrSSR.

DEKHTYARENKO, T.D.

Antigenic and serological properties of nucleic acids.  
Mikrobiol. zhur. 26 no.1:73-78 '64. (MIRA 18:11)

DEKHTYARENKO, T.D.

Nucleotide composition of DNA from streptomycin-resistant  
bacterial mutants from the enteric group. Mikrobiol. zhur.  
26 no.2:3-7 '64.  
(MIRA 18:8)

1. Institut mikrobiologii AN UkrSSR.

DEKHTYAREV, A. P.: Master Tech Sci (diss) -- "Gas turbines in systems of power engineering for agricultural use". Kiev, 1958. 16 pp (Min Agric Ukr SSR, Ukr Acad Agric Sci), 150 copies (KL, No 7, 1959, 124)

DEKHTYAREV, A.P.

Gas turbines combined with semicoking installations. Trudy Inst.  
teppl. AN URSN no.15:113-117 '58. (MIRA 11:10)  
(Gas turbines)

DUBININ, N.G., kandidat tekhnicheskikh nauk; DIMITRIEV, S.I., inzhener;  
PAVLOV, A.I., inzhener; VOLGOV, A.N., ~~inzhener~~

Breaking ore by ring drilling in the Tashtagol mine. Gor.zhur. no.7:  
38-40 Jl '55. (MIRA 8:8)  
(Tashtagol--Iron mines and mining)

DEKHTYAREV, S.I.; CHINAKAL, N.A., professor, doktor tekhnicheskikh nauk.

New RA-100 boring machine. Gor. zhur. no.1:55-58 Ja '56.

(MIRA 9:5)

1. Zamestitel' direktora Kuznetskogo metallurgicheskogo kombinata imeni Stalina (for Dekhtyarev); 2. Direktor Gornogo-geologicheskogo instituta Zapadno-Sibirskogo filiala Akademii nauk SSSR (for Chinakal).

(Boring machinery)

DEKHTYAREV, S.I.

DUBYNIN, I.I., kandidat tekhnicheskikh nauk; SHABEL'NIKOV, G.V.; MUKIMOV, P.I.,  
gornyy inzhener; DEKHTYAREV, S.I., gornyy inzhener.

Investigating the geometry of stowing. Gor.shur. no. 2:13-32 S '57.  
(MLM 10:9)

1. Gorno-geologicheskiy institut Zapadno-Sibirskego filiala Akademii  
nauk SSSR (for Dubynin and Shabel'nikov). 2. Gornoye upravleniye  
Kuznetskogo metallicheskogo kombinata (for Mukimov and Dekhtyarev).  
(Mining engineering)

VINOGRADOV, V.S., inzh.; AL'TSHULER, M.A., kand. tekhn. nauk; POLYAKOV, V.G., inzh.; KUROCHKIN, A.N., inzh.; KAIMAZIN, V.I., doktor tekhn. nauk; ZAIKIN, S.A., inzh.; OSTROVSKIY, G.P., inzh.[deceased]; NAUMENKO, P.I., inzh.; BOBRUSHKIN, I.G., inzh.; RUSTAMOV, I.I., inzh.; SHIFRIN, I.I., inzh.; GOLOVANOV, G.A., inzh.; KRASOVSKIY, L.A., inzh.; TSIMBALENKO, L.N., inzh.; RAVIKOVICH, I.M., inzh.; BAZILEVICH, S.V., kand. tekhn.nauk; ZORIN, I.P., inzh.; ZUBAREV, S.N., inzh.; TIKHOVIDOV, A.F., inzh.; SHITOV, I.S., inzh.; GAMAYUROV, A.I., inzh.; KUSEMBAYEV, Kh.N., inzh.; DEKHTYAREV, S.I., inzh.; VORONOV, I.S., inzh.; BURMIN, G.M., inzh.; BARYSHEV, V.M., inzh.; GOLOVIN, Yu.P., inzh.; MARCHENKO, K.F., inzh.; RYCHKOV, L.F., inzh.; NESTERENKO, A.M., inzh.; KABANOV, V.F., inzh.; PATRIKEYEV, N.N., inzh.[deceased]; ROSSMIT, A.F., inzh.; SOSEDOV, O.O., inzh.; POKROVSKIY, M.A., inzh., retsentent: POLOTSK, S.M., red.; GOL'DIN, Ya.A., glav. red.; GOLUBYATNIKOVA, G.S., red. izd-va; BOLDYREVA, Z.A., tekhn. red.

[Iron mining and ore dressing industry] Zhalezorudnaia promyshlennost'. Moskva, Gosgortekhizdat, 1962. 439 p.

(MIRA 15:12)

1. Moscow. Tsentral'nyy institut informatsii chernoy metallurgii.  
(Iron mines and mining) (Ore dressing)

PEREYD. S. A.  
DEMYTYAREV, V.A.

Remote control and automatic blocking used in servicing  
crushing mills. Rats. i izobr. predl. v stroi. no.2:113-114  
'57. (MIKA 11:1)

1. Nachal'nik elektrotekha Danilovskogo oblastnovogo zavoda, Moskva.  
(Crushing machinery) (Automatic control)

DEKTYAREV, V.G. (Moskva)

Stability of motion in a generalized problem of two stationary  
centers. Prikl. mat. i mekh. 26 no.6:1118-1121 N-D '62.

(Artificial satellites) (Orbits) (MIRA 16:1)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4

DEKHTYAREV, V.L., inzhener; DRIKER, M.A., inzhener; KALJENDER'YAN, V.A.,  
inzhener; SHIRYAYEV, N.P., inzhener.

Operation of spray desuperheaters in TP-170-1 high pressure  
boilers. Elek.sta. 27 no.8:10-15 Ag '56. (MLRA 9:10)  
(Boilers--Accessories)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000309930003-4"

DEKHTYAREV, V.L., inzh.

Construction of a large highly efficient carbon dioxide power  
system. Elek. sta. 33 no.5:2-6 My '62. (MIRA 15:7)  
(Electric power plants)

DEKHTYAREV, V.L.

Development of an economically efficient cycle of a heat-power  
plant. Trudy Od. tekhn. inst. 14:39-44 '62. (MIRA 16:12)

1. Rabota wypolnena na kafedre teplotekhniki Odesskogo  
tekhnologicheskogo instituta. Rukovoditel' raboty - doktor  
tekhn. nauk, prof. Gokhshteyn, D.P.

L 33542-15

S/0114/64/000/011/0020/0022

ACCESSION NR: AP5009157

AUTHOR: Gokhshteyn, D. P. (Doctor of technical sciences); Dekhtyarev, V. L.<sup>3</sup>  
(Candidate of technical sciences); Timchenko, B. S. (Engineer); Olesevich, Ye. K.  
(Engineer); Khalyaydzhi, V. N. (Engineer); Fyabova, A. S. (Engineer); Bykov, V. N.  
(Engineer); Konorez, A. I. (Engineer)

TITLE: Medium power carbon dioxide power installation

SOURCE: Energomashinostroyeniye, no. 1, 1964, 20-22

TOPIC TAGS: electric power plant, carbon dioxide, electric power source

ABSTRACT: Theoretical principles for carbon dioxide power installations worked out at the Odessa Technological Institute imeni M. V. Lomonosov have shown the possibility for building high power compact units which are more economical than steam and gas turbines. Results of research on an installation of this type with a power of 50 Mw, the UKP-50, show that the efficiency advantage of the carbon dioxide installation over steam units increases with a transition from high to medium power.

Card 1/1

L 33542-45

ACCESSION NR: AP500915

Following is the efficiency of the installation and its elements:

Generator power of the installation, M	50.0
Consumption of carbon dioxide G, kg/sec	269.0
Efficency, %: of the compressor, n <sub>c</sub>	0.88
of the pump, n <sub>p</sub>	0.80
of the turbines, n <sub>t</sub>	0.90
of the boiler, n <sub>b</sub>	0.92
of the generator, n <sub>g</sub>	0.985
mechanical, n <sub>m</sub>	0.99
of the thermal flow, n <sub>tf</sub>	0.99
of internal requirements, n <sub>i</sub>	0.97
electrical efficiency of the engine room, n <sub>e</sub>	44.1
net, n <sub>est</sub>	39.0

Card 2/3

L 33562-60	ACCESSION NR:	AF5009157	In spite of the low starting temperature of 565°, the 39% efficiency of the carbon dioxide installation exceeds that of gas turbine units with a starting temperature of 675° and higher. Orig. art. hui: 1 table, 3 figures.		
ASSOCIATION: none			ENCL: 00	SUB CODE: E1	
SUBMITTED: DO			OTHER: 000	JPRS	
NO REF Sov: (xx)					
Card 3/3					

ACC NR: AP6021426

SOURCE CODE: UR/0413/66/000/011/0025/0025

INVENTORS: Dekhtyarev, V. L.; Kozorez, A. I.; Olesevich, Ye. K.

ORG: none

TITLE: A method for starting a heat power system using low boiling materials. Class 14, No. 182178

SOURCE: Izobreteniya, promyshlennyye obratstsy, tovarnyye znaki, no. 11, 1966, 25

TOPIC TAGS: engine starter system, thermodynamic cycle, engine component

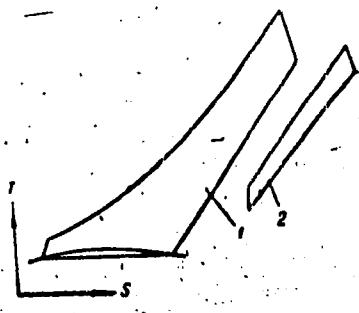
ABSTRACT: This Author Certificate presents a method for starting a heat power system using low boiling materials, as explained in Author Certificate No. 143815. To lower the power of the starting motor, the system is started after the working cycle is divided into a cycle with liquid compression and a cycle with gas compression (see Fig. 1).

Card 1/2

UDC: 621.11-176.2-574

ACC NR: AP6021426

Fig. 1. 1 - liquid compression cycle; 2 - gas compression cycle



Orig. art. has: 1 figure.

SUB CODE: 101 SUBM DATE: 14Nov64

Card 2/2

ACC NR: AP6021779

(A)

SOURCE CODE: UR/0413/66/000/012/0040/0040

INVENTOR: Delchtyarev, V. L.

ORG: none

TITLE: Closed steam turbine system using low boiling matter. Class 14, No. 182739

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 40

TOPIC TAGS: steam turbine, carbonic acid, turbine compressor, steam condenser

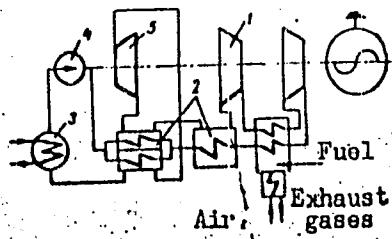
ABSTRACT: This Author Certificate presents a closed steam turbine system working on low boiling matter, such as carbonic acid. The system contains a turbine with regenerating heaters, a condenser, and a pump for feeding the working matter in its liquid state into the boiler (see Fig. 1). To increase its economy and decrease its size, the pipe for spent steam carries, between the regenerating heaters, a compressor for bringing steam to pressure lower than the original one. Orig. art. has: 1 figure.

Card 1/2

UDC: 621.438-176.2

ACC NR: AP6021779

Fig. 1. 1 - turbine; 2 - regenerating  
heater; 3 - condenser; 4 - pump;  
5 - compressor



Orig. art. has: 1 figure.

SUB CODE: 21, 13/ SUBM DATE: 10Mar58

Card 2/2

ARZUMANOV, V.N.; DEKHTYAREV, V.S.

Suppressing plate modulation in ratio detectors. Trudy IPI no.194:  
175-183 '58. (MIRA 11:11)  
(Radio, Frequency modulation--Receivers and reception)

DEKHTYAREVA, A.P. (Khar'kov)

Effect on the pulp of preparing teeth for permanent prosthesis. Probl.  
stom. 3:405-412 '56  
(DENTISTRY) (MLRA 10:5)

PASHKOVSKIY, F.; TITARENKO, I.; DEKHTYAREVA, K.

Ways to lower the cost of building sugar refineries. Prom.stroi.  
i inzh.soor. 4 no.5:38-42 S-0 '62. (MIRA 16:1)

1. Direktor Ukrainskogo gosudarstvennogo instituta po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti (for Pashkovskiy).
2. Glavnyy arkitektor Ukrainskogo gosudarstvennogo instituta po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti (for Titarenko). 3. Glavnyy tekhnolog Ukrainskogo gosudarstvennogo instituta po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti (for Dekhtyareva).

(Sugar manufacture)  
(Industrial plants—Design and construction)